

H99 SERIES

HAM-LET SCREWED BONNET NEEDLE VALVE

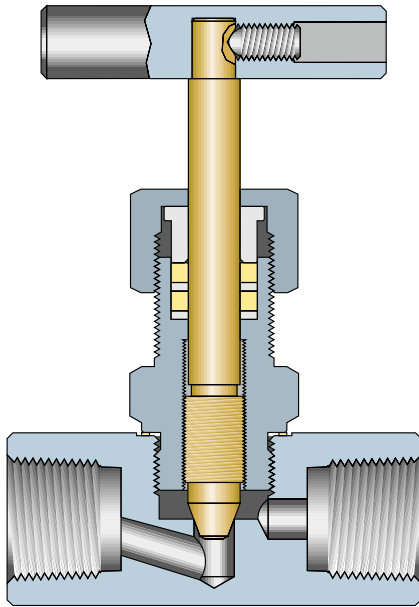


Features:

- Stainless Steel and Brass Construction
- MAWP 10,000 psi (680 bar)
- MAWT 450 °F (232 °C)
- Flow coefficient (Cv) 0.3 to 2.2.
- Sizes: 1/4" to 1"
- Female NPT, Socket Weld End Connections
- Metal Handles
- Variable Stem Range

GENERAL

A general service valve of rugged design and construction. Available in stainless steel, steel or brass to suit a wide range of services. Capable of withstanding high pressures (10,000 psig max.), this valve is typically used in corrosive service, high pressure sampling systems, high pressure shut down systems and test stands.



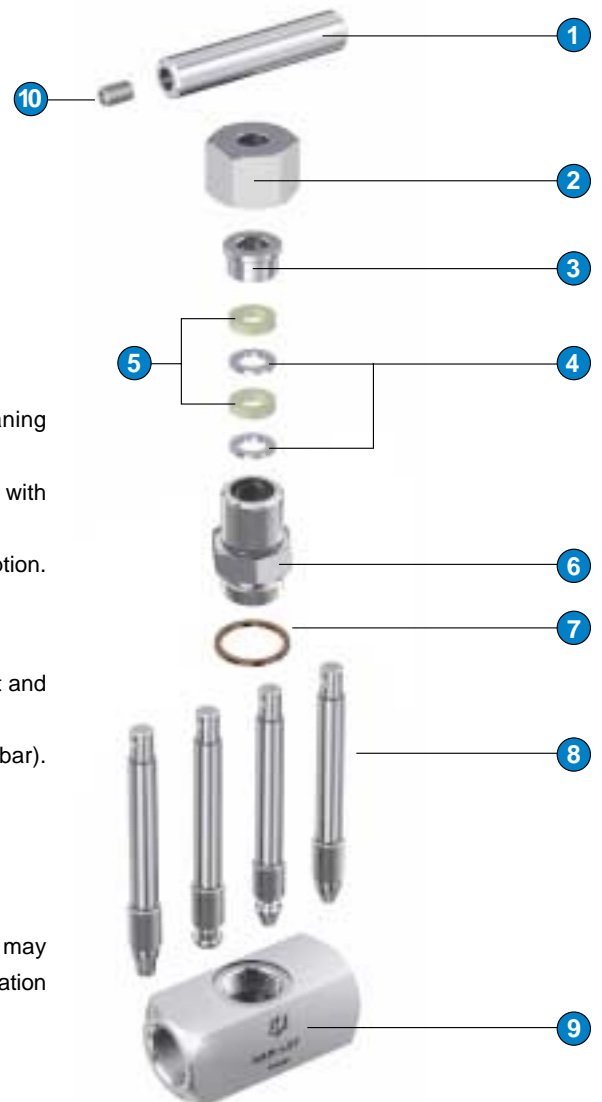
A Stainless Steel Valves - Standard construction

B Brass Valves - Standard construction

C Steel Valves - Standard construction

MATERIALS

No.	Part Name	Qty	A	B	C	
1	Handle	1	316 St.St.	Brass	Steel	
2	Nut	1	316 St.St.	Brass	Steel	
3	Upper Gland	1	316 St.St.	Brass	Steel	
4	Lower Gland	2	316 St.St..	Brass	Steel	
5	Packing	1	PTFE	PTFE	PTFE	
6	Bonnet	1	316 St.St.	Brass	Steel	
7	Ring	1	316 St.St.	316 St.St.	316 St.St.	
A	Regulating Stem	1	316 St.St.	Brass	316 St.St.	
B	V-Stem	1	316 St.St.	Brass	316 St.St..	
8	C	Non-Rotating Stem	1	St.St.	St.St.	St.St.
D	Non-Rotating Soft Seat Stem	1	St.St/ Kel-F	St.St/ Kel-F	St.St/ Kel-F	
9	Body	1	316 St.St.	Brass	Steel	
10	Set screw	1	316 St.St.	Brass	Steel	



CLEANING & PACKAGING:

Ham-Let's H99 Needle valve is treated with Ham-Let Passivation Cleaning and Packaging (Procedure 8075).

Ham-Let H99 Needle valves with face seal end connections are treated with Oxygen Cleaning and Packaging (Procedure 8055).

Oxygen Cleaning and Packaging (Procedure 8055) is available as an option.

TESTING:

The H99 series Needle Valve designs have been tested for Proof, Burst and Leakage.

Every H99 Needle Valve is factory tested with nitrogen at 1000psi (69 bar). Maximum allowable leak across seats is 0.1 std cc/min.

No leakage is allowed for shell testing.

PACKING ADJUSTMENT

Due to the varied service applications of the valve, packing adjustment may be occasionally necessary. Initial adjustment is recommended after installation and prior to start-up.

MAX. PRESSURE RATING AT 70°F (21°C)
Threaded connections only*

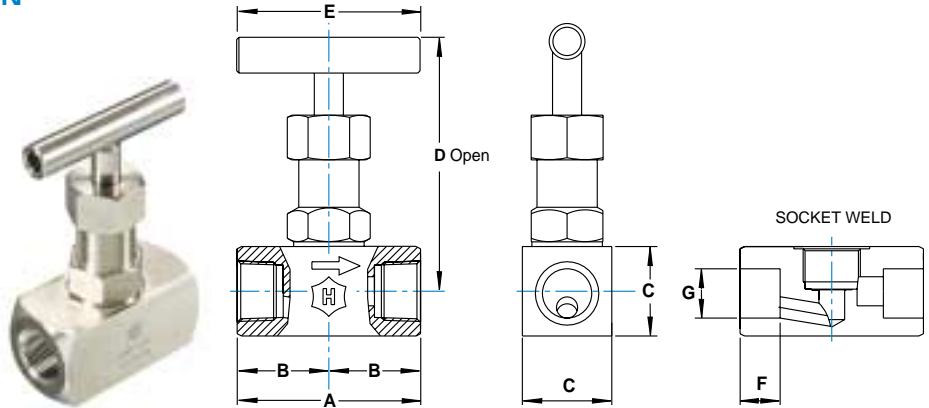
Material	Sizes				
	1/4	3/8	1/2	3/4	1"
ST.ST.	10,000	8,000	6,000	6,000	6,000
Steel	6,000	6,000	6,000	5,000	4,000
Brass	2,500	2,500	2,500	2,500	1,500

*For maximum pressure ratings for alternative connections types - apply to factory.

TEMPERATURE RANGE

	Minimum		Maximum	
ST.ST.	-60°F	-51°C	450°F	232°C
Steel	-20°F	-30°C	300°F	185°C
Brass	-40°F	-40°C	300°F	185°C

MATERIAL OF CONSTRUCTION



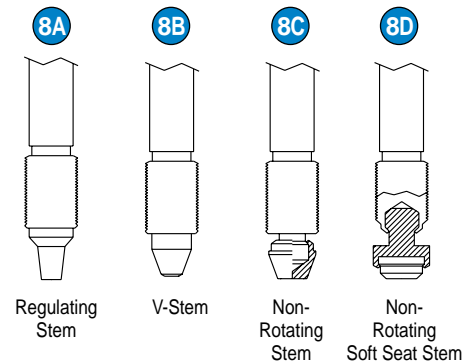
DIMENSIONS H99 SERIES

Basic Ordering Number	Orifice		Cv	Connection Size		A Stright		A2 Angle		B		C		D		E		F		G		
	mm	inch		Inlet	Outlet	mm	inch	mm	inch	mm	inch	mm	inch	mm	inch	mm	inch	mm	inch	mm	inch	
H-99	4.4	0.173	0.3	1/4" NPT - F	1/4" NPT - F	35.0	1.38	70.0	2.76	15.0	0.59	15.0	0.59	64.0	2.52	100.0	3.94	30.0	1.18			
H-99	7.0	0.276	0.9	3/8" NPT - F	3/8" NPT - F	32.5	1.28	65.0	2.56	15.0	0.59	15.0	0.59	64.0	2.52	100.0	3.94	30.0	1.18			
H-99			0.9	1/2" NPT - F	1/2" NPT - F	36.0	1.42	72.0	2.83	15.0	0.59	15.0	0.59	64.0	2.52	100.0	3.94	30.0	1.18			
H-99SW	10.0	0.394	0.9	1/2" Socket Weld	1/2" Socket Weld	41.0	1.62	82.0	3.23	20.0	0.79	20.0	0.79	82.0	3.23	122.0	4.80	40.0	1.57	12.7	0.5	12.4
H-99			0.9	3/4" NPT - F	3/4" NPT - F	41.0	1.62	82.0	3.23	20.0	0.79	20.0	0.79	82.0	3.23	125.0	4.80	40.0	1.57			
H-99	11.5	0.452	2.2	1" NPT - F	1" NPT - F	44.5	1.75	89.0	3.50	25.0	0.99	25.0	0.99	82.0	3.23	130.0	5.00	50.0	1.97			

ALTERNATIVE STEMS

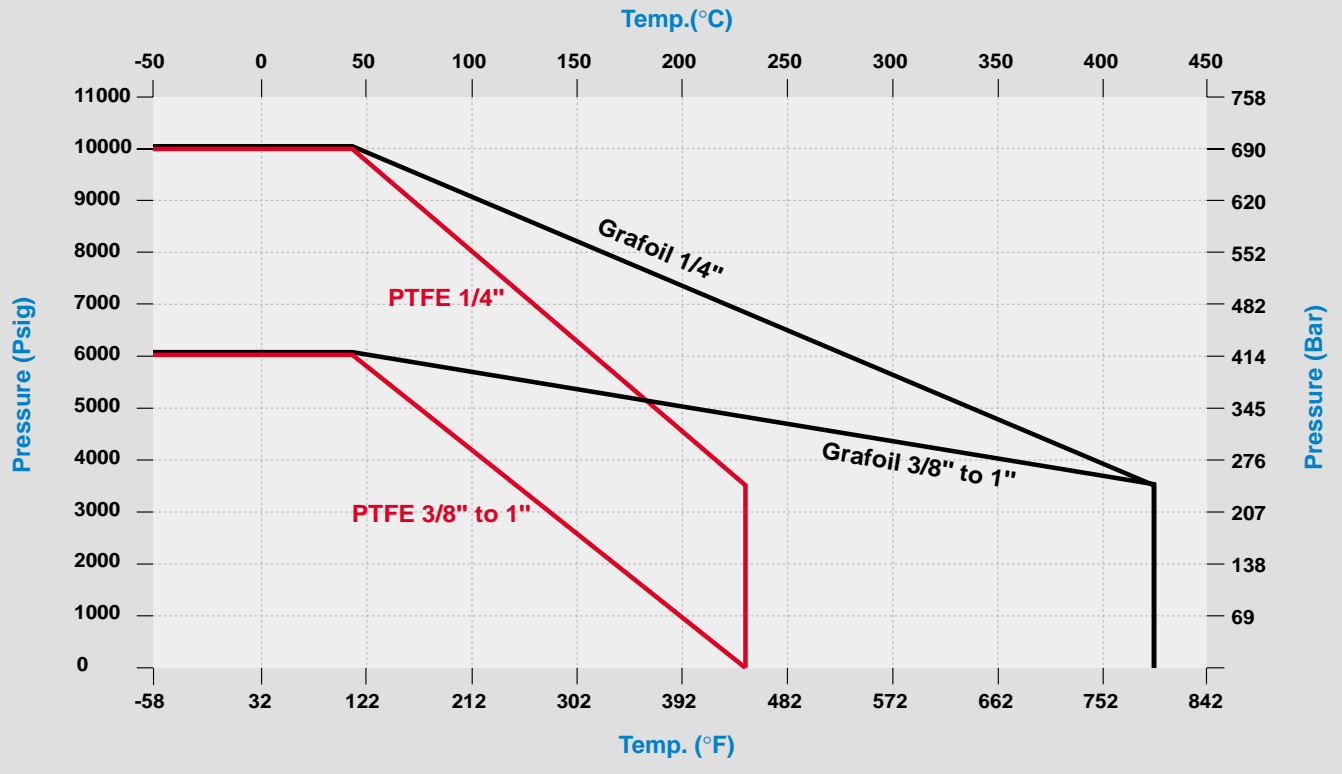
Ham-Let needle valves are available with a choice of stem tip options to allow greater flexibility.

- A Regulating:** Used where some degree of flow control is required.
- B V-Stem:** A standard stem tip used for general purpose liquids and gases.
- C Non-Rotating:** Typically used in high-cycle applications to extend valve life. It is designed to prevent galling between the seat and stem.
- D Soft Seat:** A soft seat requires a lower seating torque than a metal stem tip. The soft seat is replaceable. Maximum temperature 250°F (121°C).



PRESSURE - TEMPERATURE RATING

Applicable only to St.St. 316 Body



ORDERING INFORMATION

Your Safety is important to us. Please ensure proper reference to our latest catalog

H99	SS	N	V	1/2	OPTIONAL:	
Valve Series	Body Material	End Connection	Stem Designator	Size Designator	Packing Designator	Pattern Designator
	B - Brass SS - 316SS	N - Female NPT SW - Socket weld	V - V-Stem R - Regulating Stem K - Soft Seat Kel-F Stem NR - Non-Rotating Stem	1/4" 3/8" 1/2" 3/4" 1"	G - Grafoil Packing PTFE packings is standard	A - Angle Straight pattern is standard

Spare Parts Kit - Repair Kit

Spare parts kit is available for each valve. The kit includes: Stem Packing.

To order a spare parts kit, use the following format:

H99 - KIT - 1/4 - P

End Connection Size	Seat Material
	P - PTFE® G - Grafoil

Warning - for your safety:

Select the right component for safety's sake: The total design of the system must be taken into consideration when selecting components in order to ensure that your Ham-Let products provide safe, trouble-free operation. It is the responsibility of the system designer and the user to consider the compatibility of the materials, of the components and system, the function of the component, appropriate ratings and to ensure proper installation, operation and maintenance.

Improper selection or use of products can cause property damage or personal injury, in respect of which the system designer and/or the user shall be solely liable and responsible.

For more information on Ham-let fittings visit the Industrial Ancillaries Ltd website at www.indanc.com